A32407-PCT-USA-A (065125.0108) PATENT



P. 10/02

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

Applicants:

Wu et al.

Application No.:

09/930,781

Examiner:

Anne Marie Baker

Filed:

August 15, 2001

Gp. Art Unit: 1632

For: PROPAGATION OF HUMAN HEPATOCYTES IN NON-HUMAN ANIMALS

I hereby certify that this paper is being deposited with the United States Postal Service as First Class mail in an envelope addressed to: Commissioner for Patents, Washington, D.C. 20231 on October 2, 2002

Peter J. Shen
Attorney's Name

52,217

Registration No.

Simotomo

 $\frac{10/2/02}{\text{Date of Signature}}$

RECEIVED

OCT/0 9 2002

TECH CENTER 1600/2900

INFORMATION DISCLOSURE STATEMENT

Assistant Commissioner for Patents Washington, D.C. 20231

Sir:

In accordance with 37 C.F.R. § 1.56, Applicants respectfully request that the references relating to the above-mentioned application listed herein be made of record in the U.S. Patent and Trademark Office.

- 1. 6,034,297**
- 2. 5,759,830
- 3. 5,858,328
- 4. WO 00/18193

- 5. WO 00/17338
- 6. WO 96/39810**

1

- 7. WO 95/09235
- 8. WO 94/27556
- 9. WO 94/02601
- 10. WO 93/18144
- 11. Attavar et al., 1997, "Mechanisms of intrathymic tolerance induction to isolated rat hepatocyte allografts", Hepatology 26:1287-1295.
- 12. Aviv and Leder, 1972, "Purification of biologically active globin messenger RNA by chromatography on oligothymidic acid-cellulose", Proc. Natl. Acad. Sci. U.S.A., 69:1408-1412.
- 13. Berchtold, 1989, "A simple method for direct cloning and sequencing cDNA by the use of a single specific oligonucleotide and oligo(dT) in a polymerase chain reaction (PCR)", Nuc. Acids Res. 17:453.
- 14. Bertolini et al., 1993, "The human bone-marrow-derived B-cell line CE, susceptible to hepatitis C virus infection", Res. Virol. 144:281-285.
- 15. Billingham et al., 1953, "Actively acquired tolerance of foreign cells', Nature 172:603-606.
- 16. Bradley, 1980, "Mixed Lymphocytes Responses", in <u>Selected Methods in Cellular Immunology</u>, Mishell and Shiigi (eds.), W.H. Freeman and Co., pp. 162-172.
- 17. Blum et al., 1991, "Naturally occurring missense mutation in the polymerase gene terminating hepatitis B virus replication", J. Virol. 65:1836-1842.
- 18. Brown et al., 2000, "A long-term hepatitis B viremia model generated by transplanting nontumorigenic immortalized human hepatocytes in Rag-2-deficient mice", Hepatology 31:173-181.**
- 19. Bumgardner et al., 1998, "A functional model of hepatocyte transplantation for in vivo immunologic studies", Transplantation 65:53-61.**

- 20. Carlson et al., 1989, "Accumulation of PiZ α1-antitrypsin causes liver damage in transgenic mice", J. Clin. Invest. 83:1183-1190.
- 21. Chang et al., 1989, "Biosynthesis of the reverse transcriptase of hepatitis B viruses involves de novo translational initiation not ribosomal frameshifting", Nature 337:364-368.
- 22. Chomczynski and Sacchi, 1987, "Single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction", Anal. Biochem. 162:156-159.
- 23. Choo et al., 1991, "Genetic organization and diversity of the hepatitis C virus", Proc. Natl. Acad. Sci. U.S.A., 88:2451-2455.
- 24. Choo et al., 1989, "Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome", Science 244:359-362.
- 25. Clarke, 1997, "Molecular virology of hepatitis C virus", J. Gen. Virol., 78:2397-2410.
- 26. Clonetics 1998-1999: Normal Human Cell Systems Catalog, 1998.
- 27. Cohen, 1999, "The scientific challenge of hepatitis C", Science 285:26-30.
- 28. Cobourn et al., 1987, "Allogenic intrasplenic hepatocyte transplantation in the Gunn rat using cyclosporine A immunosuppression", Transpl. Proc. 19:1002-1003.**
- 29. Cribier et al., 1995, "In vitro infection of peripheral blood mononuclear cells by hepatitis C virus", J. Gen. Virol. 76:2485-2491.
- 30. Culver et al., 1992, "In vivo gene transfer with retroviral vector-producer cells for treatment of experimental brain tumors", Science 256:1550-1552.
- 31. Cusick et al., 1997, "The effect of donor and recipient age on engraftment of tissue engineered liver", J. Ped. Surg. 32:357-360.**
- 32. Darby et al., 1986, "Observations on rat spleen reticulum during the development of syngeneic hepatocellular implants", Br. J. Exp. Pathol. 67:329-339.**
- 33. Davis et al., 1998, "Interferon alpha-2b alone or in combination with ribavirin for the treatment of relapse of chronic hepatitis C", N. Engl. J. Med. 339:1493-1499.

- 34. De Clercq, 1984, "Biochemical aspects of the selective antiherpes activity of nucleoside analogues", Biochem. Biopharmacol. 33:2159-2169.
- 35. Demetriou et al., 1988, "Transplantation of microcarrier-attached hepatocytes into 90% partially hepatectomized rats", Hepatology 8:1006-1009.**
- 36. Dienstag et al, 1999, "Lamivudine al initial treatment for chronic hepatitis B in the United States", New Eng. J. Med. 341:1256-1263.
- 37. Dorling et al., 1997, "Clinical xenotransplantation of solid organs", Lancet. 349:867-871.
- 38. Fabrega et al., 1995, "Amelioration of analbuminemia by transplantation of allogenic hepatocytes in tolerized rats", Transplantation 59:1362-1364.**
- 39. Farber and Sarma, 1987, "Chemical carcinogenesis: the liver as a model", in Concepts and Theories in Carcinogenesis, Maskens et al. (eds.), Elsevier, Amsterdam, pp. 185-220.
- 40. Feinstone et al., 1981, "Non-A, non-B hepatitis in chimpanzees and marmosets", J. Infect. Dis. 144:588-598.
- 41. Friend et al., 1999, "Engineering hepatocyte spheroids for potential application in a bioartificial liver", http://www.cems.umn.edu/~wshu grp/bal/balold.html.
- 42. Fyfe et al., 1978, "Thymidine kinase from herpes simplex virus phosphorylates the new antiviral compound, 9-(2-hydroxyethoxymethyl)guanine", J. Biol. Chem. 253:8721-8727.
- 43. Ganem, 1996, "Hepadnaviridae and their replication" in <u>Fields Virology, Third</u> <u>Edition</u>, Fields et al. (eds.), Lippincott-Raven, Philadelphia, PA, pp. 2703-2737.
- 44. Galun et al., 1995, "Hepatitis C virus viremia in SCIDBNX mouse chimera", J. Infect. Dis. 172:25-30.
- 45. Gerber et al., 1983, "Phenotypic characterization of hepatic proliferation: antigenic expression by proliferating epithelial cells in fetal liver, massive hepatic necrosis and nodular transformation of the liver", AJP 110:70-74.

- 46. Gordon et al., 1998, "Prolonged survival of rat islet and skin xenografts in mice treated with donor splenocytes and anti-CD154 monoclonal antibody", Diabetes 47:1199-1206.**
- 47. Grossman et al., 1994, "Successful ex vivo gene therapy directed to liver in a patient with familial hypercholesterolaemia", Nat. Genet. 6:335-341.**
- 48. Groth et al., 1977, "Correction of hyperbilirubinemia in the glucuronyltransferase-deficient rat by intraportal hepatocyte transplantation", Transpl. Proc. 9:313-316.**
- 49. Guguen-Guillouzo et al., 1982, "High yield preparation of isolated human adult hepatocytes by enzymatic perfusion of the liver", Cell. Biol. Int. Rep. 6:625-628.
- 50. Gupta et al., 1996, "Hepatocyte transplantation: progress toward liver repopulation", Prog. Liv. Dis. 14:199-222.
- 51. Hadju et al., 1996, "In vitro allogenic hematopoietic stem cell transplantation to induce tolerance", Fetal Diagnosis and Therapy 11:241-248.
- 52. Heard, 1994, "Current therapeutic relevance of liver gene transfer", Hepatology 20:253-256.**
- 53. Heckel et al., 1990, "Neonatal bleeding in transgenic mice expressing urokinasetype plasminogen activator" Cell 62:447-456.**
- 54. Henry and Watson, 1980, "Immunization in microsuspension cultures", in Selected Methods in Cellular Immunology, Mishell and Shiigi (eds.), W.H. Freeman and Co., pp. 65-68.
- 55. Hollinger, 1996, "Hepatitis B Virus" in <u>Fields Virology, Third Edition</u>, Lippincott-Raven, New York, pp. 2739-2742, 2748-2751.
- 56. Holzman et al., 1993, "Selective intraportal hepatocyte transplantation in analbuminemic and Gunn rats", Transplantation 55:1213-1219.**
- 57. Iacovacci et al., 1993, "Replication and multiplication of hepatitis C virus genome in human foetal liver cells", Res. Virol. 144:275-279.
- 58. Ilan et al., 1999, "The hepatitis B virus-trimera mouse: a model for human HBV infection and evaluation of anti-HBV therapeutic agents", Hepatology 29:553-562.**

- 59. Ito et al., 1996, "Cultivation of hepatitis C virus in primary hepatocyte culture from patients with chronic hepatitis C results in release of high titre infectious virus", J. Gen. Virol. 77:1043-1054.
- 60. Jauregui et al., 1996, "Use of mammalian liver cells for artificial liver support", Cell Transplantation 5:353-367.**
- 61. Jung et al., 1999, "Initiation of mammalian liver development from endoderm by fibroblast growth factors", Science 284:1998-2002.
- 62. Kappler et al., 1987, "T cell tolerance by clonal elimination in the thymus", Cell 49:273-280.
- 63. Kato et al., 1995, "Susceptibility of human T-lymphocytropic virus type I infected cell line MT-2 to hepatitis C virus infection", Biochem. Biophys. Res. Commun. 206:863-869.
- 64. Kato et al., 1990, "Molecular cloning of the human hepatitis C virus genome from Japanese patients with a non-A, non-B hepatitis", Proc. Natl. Acad. Sci. U.S.A., 87:9524-9528.
- 65. Kline et al., 1994, "Development of tolerance to experimental cardiac allografts in utero", Ann. Thorac. Surg. 57:72-75.
- 66. Knodell et al., 1981, "The woeful cation: mechanisms for its hepatic uptake", Hepatology 1:524.
- 67. Kolberg et al., 1994, "The bystander effect in gene therapy: great, but how does it work?", J. NIH Res. 6:62-64.
- 68. Kolykhalov et al., 1997, "Transmission of hepatitis C by intrahepatic inoculation with transcribed RNA", Science 277:570-574.
- 69. Krumlauf et al., 1985, "Regulated expression of α-fetoprotein genes in transgenic mice", Cold Spring Harbor Symp. Quant. Biol. 5-0:371-378.
- 70. Lanford et al., 1994, "Demonstration of in vitro infection of chimpanzee hepatocytes with hepatitis C virus using strand specific RT/PCR", Virol. 202:606-614.

- 71. Lanford et al., 1995, "Lack of detection of negative-strand hepatitis C virus RNA in peripheral blood mononuclear cells and other extrahepatic tissues by the highly strand-specific rTth reverse transcriptase PCR", J. Virol. 69:8079-8083.
- 72. Liang, 1998, "Combination therapy for hepatitis C infection", N. Engl. J. Med. 339:1549-1550.
- 73. Lieber et al., 1996, "Elimination of hepatitis C virus RNA in infected human hepatocytes by adenovirus-mediated expression of ribozymes", J. Virol. 70:8782-8791.
- 74. Lieber et al., 1995, "Adenovirus-mediated urokinase gene transfer induces liver regeneration and allows for efficient retrovirus transduction of hepatocytes in vivo", Proc. Natl. Acad. Sci. U.S.A., 92:6210-6214.
- 75. Lohmann et al., 1999, "Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line", Science 285:110-113.**
- 76. Major and Feinstone, 1997, "The molecular virology of hepatitis C", Hepatology 25:1527-1538.
- 77. Maganto et al, 1988, "Effect of Ciclosporin on allogenic hepatocyte transplantation: a morphological study", Eur. Surg. Res. 20:248-253.**
- 78. Main et al., "Hepatitis" in <u>Antibiotic Chemotherapy</u>, 7th Edition, Chapter 51, pages 721-731.**
- 79. Makowka et al., 1986, "Allogenic hepatocyte transplantation in the rat spleen under cyclosporine immunosuppression", Transplantation 42:537-541.**
- 80. Markus et al., 1997, "Selective intraportal transplantation of DiI-marked isolated rat hepatocytes", Cell Transplantation 6:455-462.
- 81. Marucci et al., 1997, "Effect of xanthine analog on human hepatocellular carcinoma cells (Alexander) in culture and in xenografts in SCID mice", Hepatology 26:1195-1202.
- 82. Matas et al., 1976, "Hepatocellular transplantation for metabolic deficiencies: decrease of plasma bilirubin in Gunn rats", Science 192:892-894.**

- 83. McDuffie et al., 1988, "Involvement of major histocompatibility complex products in tolerance induction in the thymus', J. Immunol. 141:1840-1847.
- 84. McHutchison et al., 1998, "Interferon alpha-2b alone or in combination with ribavirin as initial treatment for chronic hepatitis C", N. Eng. J. Med. 339:1485-1492.
- 85. Mito et al., 1993, "Hepatocyte transplantation for hepatic failure", Transplant Rev. 7:35-43.**
- 86. Mitzutani et al., 1995, "Inhibition of hepatitis C virus replication by antisense oligonucleotide in culture cells", Biochem. Biophys. Res. Commun. 212:906-911.
- 87. Mooney and Mikos, 1999, "Growing new organs", Scientific American. http://www.sciam.com:80/1999/0499issue/0499mooney.html.
- 88. Moscioni et al., 1989, "Human liver cell transplantation: prolonged function in athymic-Gunn and athymic-analbuminemic hybrid rats", Gastroenterol. 96:1546-1551.**
- 89. Mullins et al., 1996, "Perspective Series: Molecular Medicine in Genetically Engineered Animals", Journal of Clinical Investigation 98(11):537-539.
- 90. Nakajima et al., 1996, "Characterization of long-term cultures of hepatitis C virus", J. Virol. 70:3325-3329.
- 91. Ohashi et al., 2000, "Sustained survival of human hepatocytes in mice: a model for in vivo infection with human hepatitis delta viruses", Nat. Med. 6:327-331.**
- 92. Okamoto et al., 1991, "Nucleotide sequence of the genomic RNA of hepatitis C virus isolated from a human carrier: comparison with reported isolates for conserved and divergent regions" J. Gen. Viol. 72:2697-2704.
- 93. Onodera et al., 1995, "Long-term effect of intrasplenic hepatocyte transplantation in cogenitally ascorbic acid biosynthetic enzyme-deficient rats", Cell Transpl. 4:S41-S43.**
- 94. Osborn and Webber, 1982, "Immunofluorescence and immunocytochemical procedures with affinity purified antibodies: tubulin-containing structures", Meth. Cell. Biol. 24:97-132.

- 95. Ouyang et al., 1999, "A approach for obtaining functional human hepatocytes in livers of immunocompetent rats", Hepatology 30:252A.**
- 96. Pages et al., 1995, "Efficient retroviral-mediated gene transfer into primary culture of murine and human hepatocytes: expression of the LDL receptor", Hum Gene Ther. 6:21-30. **
- 97. Palmiter et al., 1982, "Differential regulation of metallothionein-thymidine kinase fusion genes in transgenic mice and their offspring", Cell 29:701-710.
- 98. Peterson et al., 1998, "Liver repopulation with xenogenic hepatocytes in B and T cell-deficient mice leads to chronic hepadnavirus infection and clonal growth of hepatocellular carcinoma", Proc. Natl. Acad. Sci. U.S.A., 95:310-315.**
- 99. Ponder et al., 1991, "Mouse hepatocytes migrate to liver parenchyma and function indefinitely after intrasplenic transplantation", Proc. Natl. Acad. Sci. U.S.A. 88:1217-1221.
- 100. Powell and Streilein, 1990, "Neonatal tolerance induction by class II alloantigens activates IL-4-secreting, tolerogen-responsive T cells", J. Immunol. 144:854-859.
- 101. Poynard et al., 1998, "Randomised trial of interferon α2b plus ribavarin for 48 weeks or 24 weeks versus interferon α2b plus placebo for 48 weeks for treatment of chronic infection with hepatitis C virus", Lancet 352:1426-1432.
- 102. Pullen et al., 1988, "The T-cell repertoire is heavily influenced by tolerance to polymorphic self-antigens", Nature 335:796-801.
- 103. Ramsdell et al., 1989, "A nondeletional mechanism of thymic self tolerance", Science 246:1038-1041.
- 104. Rhim et al., 1995, "Complete reconstitution of mouse liver with xenogenic hepatocytes", Proc. Natl. Acad. Sci. U.S.A. 92:4942-4946.**
- 105. Rhim et al., 1994, "Replacement of diseased mouse liver by hepatic cell transplantation", Science 263:1149-1152.**
- 106. Rivas et al., 1994, "Transplantation of hepatocytes: an in-vitro and in-vivo study in canines", Cell Transplantation 3:193-201.

- 107. Rozga et al., 1995, "Repeated intraportal hepatocyte transplantation in analbuminemic rats", Cell Transpl. 4:237-243.
- 108. Sacci et al., 1992, "Mouse model for exoerythrocytic stages of Plasmodium falciparum malaria parasite", Proc Natl Acad Sci. 89:3701-3705.**
- 109. Salomon et al., 1995, "A truncated herpes simplex virus thymidine kinase phosphorylates thymidine and nucleoside analogs and does not cause sterility in transgenic mice", Mol. Cell. Biol. 15:5322-5328.
- 110. Sandgren et al., 1991, "Complete hepatic regeneration after somatic deletion of an albumin-plasminogen activator transgene", Cell 66:245-256.
- 111. Sanhadji et al., 1992, "Transplantation in various murine models", Bone Marrow Transplantation 9:77-82.
- 112. Santoro and Joyce, 1997, "A general purpose RNA-cleaving DNA enzyme", Proc. Natl. Acad. Sci. U.S.A. 94:4262-4266.
- 113. Scheffe, 1959, <u>The Analysis of Variance</u>, John Wiley and Sons, New York, NY, p. 247.
- 114. Seeger et al., 1986, "Biochemical and genetic evidence for the hepatitis B virus replication strategy", Science 232:477-484.
- 115. Seglen et al., 1976, "Preparation of rat liver cells", Methods Cell Biol. 13:29.
- 116. Sells et al., 1988, "Replicative intermediates of hepatitis B virus in HepG2 cells that produce infectious virions", J. Virol. 62:2836-2844.
- 117. Shimizu and Yoshikura, 1994, "Multicycle infection of hepatitis C virus in cell culture and inhibition by alpha and beta interferons", 68:8406-8408.
- 118. Shimizu et al., 1992, "Evidence for in vitro replication of hepatitis C virus genome in a human T-cell line", Proc. Natl. Acad. Sci. U.S.A., 89:5477-5481.
- 119. Smythe et al., 1995, "Treatment of experimental human mesothelioma using adenovirus transfer of the herpes simplex thymidine kinase gene", Ann. Surg. 222:78-86.

- 120. Sommer et al., 1979, "Hepatocellular transplantation for treatment of D-galactosamine-induced acute liver failure in rats", Transplant Proc. 11:578-584.**
- 121. Soriano et al., 1992, "Retroviral transduction of human hepatocytes and orthotopic engraftment in SCID mice after hepatocellular transplantation", Transplant Proc. 24(6):3020-3021.**
- 122. Streilein, 1991, "Neonatal tolerance of H-2 alloantigens: procuring graft acceptance the 'old-fashioned' way", Transplantation 52:1-10.
- 123. Su et al., 1996, "Selective killing of AFP-positive hepatocellular carcinoma cells by adeno-associated virus transfer of the herpes simplex virus thymidine kinase gene", Human Gene Therapy, 7:463-470.**
- 124. Sugiyama et al., 1997, "Genetic analysis of the hepatitis C virus (HCV) genome from HCV-infected human T cells", J. Gen. Virol. 78:329-336.
- 125. Summers and Mason, 1982, "Replication of the genome of a hepatitis B-like virus by reverse transcription of an RNA intermediate", Cell 29:403-415.
- 126. Sutherland et al., 1977, "Hepatic transplantation in acute liver failure", Surgery 82:124-132.**
- 127. Takamizawa et al., 1991, "Structure and organization of the hepatitis C virus genome isolated from human carriers", J. Virol. 65:1105-1113.
- 128. Takeshita et al., 1993, "Hepatocellular transplantation for metabolic support in experimental acute ischemic liver failure in rats", Cell Transplantation 2:319-324.**
- 129. Taylor et al., 1999, "Inhibition of interferon-inducible protein kinase PKR by HCV E2 protein", Science 285:107-110.
- 130. Thomas, 1999, "Hepatitis C virus dynamics in vivo and the antiviral efficacy of interferon alfa therapy", Hepatology 29:1333-1334.
- 131. Touraine, 1991, "In utero transplantation of fetal liver stem cells in humans", Blood Cells 17:379-387.

- Vemura et al., 1992, "Immune tolerance to a defined heterologous antigen after intrasplenic hepatocyte transplantation: implications for gene therapy", FASEB 6:2836-2842.
- 133. Verma and Somia, 1997, "Gene therapy -- promises, problems and prospects", Nature. 389:239-242.**
- 134. Wiederkehr et al., 1990, "Hepatocyte transplantation for the low-density lipoprotein receptor-deficient state" Transplant. 50:466-476.**
- 135. Will et al., 1987, "Replication strategy of human hepatitis B virus", J. Virol. 61:904-911.
- 136. Willems et al., 1994, "Hepatitis virus C-RNAs in plasma and in peripherial blood mononuclear cells of hemophiliacs with chronic hepatitis C", J. Med. Virol. 42:272-278.
- 137. Wilson et al., 1992, "Hepatocyte-directed gene transfer in vivo leads to transient improvement of hypercholesterolemia in low density lipoprotein receptor-deficient rabbits", J. Biol. Chem. 267:963-967.
- 138. Wilson et al., 1991, "Transplantation of allogenic hepatocytes into LDL receptor deficient rabbits leads to transient improvement in hypercholesterolemia", Clin. Biotechnol. 3:21-26.
- 139. Wu et al., 1991, "Receptor-mediated gene delivery in vivo: partial correction of genetic analbuminemia in nasage rats", J. Biol. Chem. 266:14338-14342.
- 140. Yoo et al., 1995, "Transfection of a differentiated human hepatoma cell line (Huh 7) with in vitro-transcribed hepatitis C virus (HCV) RNA and establishment of a long-term culture persistently infected with HCV", J. Gen. Virol. 69:32-38.
- 141. Yuh et al., 1997, "A rodent model of in utero chimeric tolerance induction", J. Heart Lung Transpl. 16:222-230.
- 142. Yuh et al., 1992, "Transcriptional regulation of precore and pregenomic RNAs of hepatitis B virus" J. Virol. 66:4073-4084.
- 143. Zignego et al., 1992, "Infection of peripheral mononuclear blood cells by hepatitis C virus", J. Hepatology 15:382-386.

144. Zucker, 1989, "On finding all suboptimal foldings of an RNA molecule", Science 244:48-52.

The referenced citations are listed in the accompanying PTO Form 1449. Applicants respectfully direct the Examiner's attention to the file history of Application No. 09/431,901 filed on November 2, 1999, which is the parent of the instant application, for copies of the above-listed references. However, copies of the references will be provided upon request of the Examiner.

References marked with a double asterisk ("**") are believed by Applicants to be of particular relevance. Identification of the above-listed references is not to be construed as an admission of the Applicants or the attorneys of the Applicants that such references are available as "prior art" against the subject application.

Applicants respectfully request that the Examiner review the foregoing references and that the references be made of record in the file history of the abovementioned application.

Applicants do not believe that any fee is required in connection with this submission. However, should any fee be required, the Commissioner is hereby authorized to charge any such fee to Deposit Account 02-4377. Duplicate copies of this sheet are enclosed.

By:

Dated: October 2, 2002

Respectfully submitted,

Lisa B. Kole

PTO Reg. No. 35,225

Peter J. Shen

PTO Reg. No. 52,217

Attorneys for Applicants

Page 1 of 13

Form PTO-1449 U.S. Department of Commerce
OCT 0 7 2002

INFORMATION DISCLOSURE STATEME **BY APPLICANT**

(Use several sheets if necessary)

Atty. Docket No. 065125.0108

Serial No. 09/930,781

Applicant Wu et al.

Filing Date August 15, 2001

Group 1632

U.S. PATENT DOCUMENTS

				11 2 3 3 3 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1			
Exam. Init.		Document No.	Date	Name	Class	Subclass	Filing Date ifAppropriate
	1.	6,034,297**	3/7/00	Vierling	800	9	
	2.	5,759,830	6/2/98	Vacanti et al.	435	180	
	3.	5,858,328	1/12/99	Reisner	424	9.2	

FOREIGN PATENT DOCUMENTS

	Document No.	Date	Country	Class	SubClass	<u>Translato</u> Yes No
4.	WO 00/18193	3/15/01	PCT			
5.	WO 00/17338	3/30/00	PCT			
6.	WO 96/39810**	1/12/99	PCT			
7.	WO 95/09235	4/6/95	PCT			
8.	WO 94/27556	12/8/94	PCT		-0	
9.	WO 94/02601	2/3/94	PCT	RECE	INED	
10.	WO 93/18144	9/16/93	PCT		9 5005	

TECH CENTER 1600/2900

NY02:409160.1

Examiner

Date Considered

Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

/	(•	•	E. ,	े
?	OCT	0	7	2002	90
<i>3</i>					-3

Form PTO-1449 U.S. Department of Commerce (RE) 17-823-5 Patent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No. Serial No. 065125.0108 09/930,781

Applicant Wu et al. RECEIVED

Filing Date Group August 15, 2001 1632 OCT 0 9 2002

TECH CENTER 1600/2900

	OTHER DOCUMENTS (including Author, Title Date, Pertinent Pages, Etc.)
1	Attavar et al., 1997, "Mechanisms of intrathymic tolerance induction to isolated rat hepatocyte allografts", Hepatology 26:1287-1295.
1:	Aviv and Leder, 1972, "Purification of biologically active globin messenger RNA by chromatography on oligothymidic acid-cellulose", Proc. Natl. Acad. Sci. U.S.A., 69:1408-1412.
1:	Berchtold, 1989, "A simple method for direct cloning and sequencing cDNA by the use of a single specific oligonucleotide and oligo(dT) in a polymerase chain reaction (PCR)", Nuc. Acids Res. 17:453.
1	Bertolini et al., 1993, "The human bone-marrow-derived B-cell line CE, susceptible to hepatitis C virus infection", Res. Virol. 144:281-285.
1	Billingham et al., 1953, "Actively acquired tolerance of foreign cells', Nature 172:603-606.
10	Bradley, 1980, "Mixed Lymphocytes Responses", in Selected Methods in Cellular Immunology, Mishell and Shiigi eds., W.H. Freeman and Co., p.162-172.
1	Blum et al., 1991, "Naturally occurring missense mutation in the polymerase gene terminating hepatitis B virus replication", J. Virol. 65:1836-1842.
1	Brown et al., 2000, "A long-term hepatitis B viremia model generated by transplanting nontumorigenic immortalized human hepatocytes in Rag-2-deficient mice", Hepatology 31:173-181.**
19	Bumgardner et al., 1998, "A functional model of hepatocyte transplantation for in vivo immunologic studies", Transplantation 65:53-61.**
20	Carlson et al., 1989, "Accumulation of PiZ α1-antitrypsin causes liver damage in transgenic mice", J. Clin. Invest. 83:1183-1190.
2	Chang et al., 1989, "Biosynthesis of the reverse transcriptase of hepatitis B viruses involves de novo translational initiation not ribosomal frameshifting", Nature 337:364-368.

NY02:409160.1

Examiner Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

	01°	EY	
2	OCT 0 7	2002	69
R			A

REW 2-82) Percent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Serial No. 09/930,781

pplicant Vu et al.	RECEIVED

Filing Date Group 1632 OCT 0 9 2002

22. Chomczynski and Sacchi, 1987, "Single-step method of RNA isolation by acid guanidinium thiocyanate-phenol-chloroform extraction", Anal. Biochem. 162:156-159. 23. Choo et al., 1991, "Genetic organization and diversity of the hepatitis C virus", Proc. Natl. Acad. Sci. U.S.A., 88:2451-2455. 24. Choo et al., 1989, "Isolation of a cDNA clone derived from a blood-borne non-A, non-B viral hepatitis genome", Science 244:359-362. 25. Clarke, 1997, "Molecular virology of hepatitis C virus", J. Gen. Virol., 78:2397-2410. 26. Clonetics 1998-1999: Normal Human Cell Systems Catalog, 1998. 27. Cohen, 1999, "The scientific challenge of hepatitis C", Science 285:26-30. 28. Cobourn et al., 1987, "Allogenic intrasplenic hepatocyte transplantation in the Gunn rat using cyclosporine A immunosuppression", Transpl. Proc. 19:1002-1003.** 29. Cribier et al., 1995, "In vitro infection of peripherial blood mononuclear cells by hepatitis C virus", J. Gen. Virol. 76:2485-2491. 30. Culver et al., 1992, "In vivo gene transfer with retroviral vector-producer cells for treatment of experimental brain tumors", Science 256:1550-1552. 31. Cusick et al., 1997, "The effect of donor and recipient age on engraftment of tissue engineered liver", J. Ped. Surg. 32:357-360.** 32. Darby et al., 1986, "Observations on rat spleen reticulum during the development of syngeneic hepatocellular implants", Br. J. Exp. Pathol. 67:329-339.** 33. Davis et al., 1998, "Interferon alpha-2b alone or in combination with ribavirin for the treatment of relapse of chronic hepatitis C", N. Engl. J. Med. 339:1493-1499. 34. De Clercq, 1984, "Biochemical aspects of the selective antiherpes activity of nucleoside analogues", Biochem. Biopharmacol. 33:2159-2169.

Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Page 4 of	of 1	3
-----------	------	---

Rorm PTO-1449 O.S. Department of Commerce (REY. 2-82) Patent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No. 065125.0108	Serial No. 09/930,781
Applicant Wu et al.	RECEIVED
Filing Date August 15, 2001	Group 1632 TEQUARIES

	August 13, 2001 TECH CENTER 1600/2
35.	Demetriou et al., 1988, "Transplantation of microcarrier-attached hepatocytes into 90% partially hepatectomized rats", Hepatology 8:1006-1009.**
36.	Dienstag et al, 1999, "Lamivudine al initial treatment for chronic hepatitis B in the United States", New Eng. J. Med. 341:1256-1263.
37.	Dorling et al., 1997, "Clinical xenotransplantation of solid organs", Lancet. 349:867-871.
38.	Fabrega et al., 1995, "Amelioration of analbuminemia by transplantation of allogenic hepatocytes in tolerized rats", Transplantation 59:1362-1364.**
39.	Farber and Sarma, 1987, "Chemical carcinogenesis: the liver as a model", in <u>Concepts and Theories in Carcinogenesis</u> , Maskens et al. (eds.) Elsevier, Amsterdam, pp. 185-220.
40.	Feinstone et al., 1981, "Non-A, non-B hepatitis in chimpanzees and marmosets", J. Infect. Dis. 144:588-598.
41.	Friend et al., 1999, "Engineering hepatocyte spheroids for potential application in a bioartificial liver", http://www.cems.umn.edu/~wshu_grp/bal/balold.html.
42.	Fyfe et al., 1978, "Thymidine kinase from herpes simplex virus phosphorylates the new antiviral compound, 9-(2-hydroxyethoxymethyl)guanine", J. Biol. Chem. 253:8721-8727.
43.	Ganem, 1996, "Hepadnaviridae and their replication", In Fields et al eds., Fields Virology, Lippincott-Raven, Philadelphia, PA, pp. 2703-2737.
44.	Galun et al., 1995, "Hepatitis C virus viremia in SCID BNX mouse chimera", J. Infect. Dis. 172:25-30.
45.	Gerber et al., 1983, "Phenotypic characterization of hepatic proliferation: antigenic expression by proliferating epithelial cells in fetal liver, massive hepatic necrosis and nodular transformation of the liver", AJP 110:70-74.
46.	Gordon et al., 1998, "Prolonged survival of rat islet and skin xenografts in mice treated with donor splenocytes and anti-CD154 monoclonal antibody", Diabetes 47:1199-1206.**

		
Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 9.S. Department of Commerce (BEV. 2-82) Percent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Serial No. 09/930,781
RECEIVED
Group 1632 TECH CENTER 1600/2
_

	, , , , , , , , , , , , , , , , , , ,
47.	Grossman et al., 1994, "Successful ex vivo gene therapy directed to liver in a patient with familial hypercholesterolaemia", Nat. Genet. 6:335-341.**
48.	Groth et al., 1977, "Correction of hyperbilirubinemia in the glucuronyltransferase-deficient rat by intraportal hepatocyte transplantation", Transpl. Proc. 9:313-316.**
49.	Guguen-Guillouzo et al., 1982, "High yield preparation of isolated human adult hepatocytes by enzymatic perfusion of the liver", Cell. Biol. Int. Rep. 6:625-628.
50.	Gupta et al., 1996, "Hepatocyte transplantation: progress toward liver repopulation", Prog. Liv. Dis. 14:199-222.
51.	Hadju et al., 1996, "In vitro allogenic hematopoietic stem cell transplantation to induce tolerance", Fetal Diagnosis and Therapy 11:241-248.
52.	Heard, 1994, "Current therapeutic relevance of liver gene transfer", Hepatology 20:253-256.**
53.	Heckel et al., 1990, "Neonatal bleeding in transgenic mice expressing urokinase-type plasminogen activator" Cell 62:447-456.**
54.	Henry and Watson, 1980, "Immunization in microsuspension cultures", in <u>Selected Methods in Cellular Immunology</u> , Mishell and Shiigi (eds.) W.H. Freeman and Co., pp. 65-68.
55.	Hollinger, 1996, "Hepatitis B Virus" in <u>Fields Virology</u> , <u>Third Edition</u> , Lippincott-Raven, New York, pp. 2739-2742, 2748-2751.
56.	Holzman et al., 1993, "Selective intraportal hepatocyte transplantation in analbuminemic and Gunn rats", Transplantation 55:1213-1219.**
57.	Iacovacci et al., 1993, "Replication and multiplication of hepatitis C virus genome in human foetal liver cells", Res. Virol. 144:275-279.
58.	Ilan et al., 1999, "The hepatitis B virus-trimera mouse: a model for human HBV infection and evaluation of anti-HBV therapeutic agents", Hepatology 29:553-562.**

Examiner	Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

/· ·		Cig	
. nct	n 7 20	02 n	
Korm P (REV. 2	TO-14 2-82)	49 G.S Batent	. Department of Commerce and Trademark Office
· VB	ADEM		

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No. 065125.0108	Serial No. 09/930,781 RECEIVED
Applicant Wu et al.	0CT 0 9 2002
Filing Date August 15, 2001	Group 1632 TECH CENTER 1600/2900

59.	Ito et al., 1996, "Cultivation of hepatitis C virus in primary hepatocyte culture from patients with chronic hepatitis C results in release of high titre infectious virus", J. Gen. Virol. 77:1043-1054.
60.	Jauregui et al., 1996, "Use of mammalian liver cells for artificial liver support", Cell Transplantation 5:353-367.**
61.	Jung et al., 1999, "Initiation of mammalian liver development from endoderm by fibroblast growth factors", Science 284:1998-2002.
62.	Kappler et al., 1987, "T cell tolerance by clonal elimination in the thymus", Cell 49:273-280.
63.	Kato et al., 1995, "Susceptibility of human T-lymphocytropic virus type I infected cell line MT-2 to hepatitis C virus infection", Biochem. Biophys. Res. Commun. 206:863-869.
64.	Kato et al., 1990, "Molecular cloning of the human hepatitis C virus genome from Japanese patients with a non-A, non-B hepatitis", Proc. Natl. Acad. Sci. U.S.A., 87:9524-9528.
65.	Kline et al., 1994, "Development of tolerance to experimental cardiac allografts in utero", Ann. Thorac. Surg. 57:72-75.
66.	Knodell et al., 1981, "The woeful cation: mechanisms for its hepatic uptake", Hepatology 1:524.
67.	Kolberg et al., 1994, "The bystander effect in gene therapy: great, but how does it work?", J. NIH Res. 6:62-64.
68.	Kolykhalov et al., 1997, "Transmission of hepatitis C by intrahepatic inoculation with transcribed RNA", Science 277:570-574.
69.	Krumlauf et al., 1985, "Regulated expression of α-fetoprotein genes in transgenic mice", Cold Spring Harbor Symp. Quant. Biol. 5-0:371-378.
70.	Lanford et al., 1994, "Demonstration of in vitro infection of chimpanzee hepatocytes with hepatitis C virus using strand specific RT/PCR", Virol. 202:606-614.

NY	กว∙	മറ	316	റ 1

Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

`/	61	P	E	4		
1	nct	0	7	2002	B	
orad.	TO.	14	10	11.6	H	_

FormAPTO-1449	U.S. Department of Commerce
TRADE	teer and Trademark Office
~(101	-

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

RECEIVED
Group 1632 TECH CENTER 1600/290C

71.	Lanford et al., 1995, "Lack of detection of negative-strand hepatitis C virus RNA in peripheral blood mononuclear cells and other extrahepatic tissues by the highly strand-specific rTth reverse transcriptase PCR", J. Virol. 69:8079-8083.
72.	Liang, 1998, "Combination therapy for hepatitis C infection", N. Engl. J. Med. 339:1549-1550.
73.	Lieber et al., 1996, "Elimination of hepatitis C virus RNA in infected human hepatocytes by adenovirus-mediated expression of ribozymes", J. Virol. 70:8782-8791.
74.	Lieber et al., 1995, "Adenovirus-mediated urokinase gene transfer induces liver regeneration and allows for efficient retrovirus transduction of hepatocytes in vivo", Proc. Natl. Acad. Sci. U.S.A., 92:6210-6214.
75.	Lohmann et al., 1999, "Replication of subgenomic hepatitis C virus RNAs in a hepatoma cell line", Science 285:110-113.**
76.	Major and Feinstone, 1997, "The molecular virology of hepatitis C", Hepatology 25:1527-1538.
77.	Maganto et al, 1988, "Effect of Ciclosporin on allogenic hepatocyte transplantation: a morphological study", Eur. Surg. Res. 20:248-253.**
78.	Main et al., "Hepatitis" in Antibiotic Chemotherapy, 7th Edition, Chapter 51, pages 721-731.**
79.	Makowka et al., 1986, "Allogenic hepatocyte transplantation in the rat spleen under cyclosporine immunosuppression", Transplantation 42:537-541.**
80.	Markus et al., 1997, "Selective intraportal transplantation of DiI-marked isolated rat hepatocytes" Cell Transplantation 6:455-462.
81.	Marucci et al., 1997, "Effect of xanthine analog on human hepatocellular carcinoma cells (Alexander) in culture and in xenografts in SCID mice", Hepatology 26:1195-1202.
82.	Matas et al., 1976, "Hepatocellular transplantation for metabolic deficiencies: decrease of plasma bilirubin in Gunn rats", Science 192:892-894.**

Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

'					2
<u>.</u>	OCT	0	7	2002	

Form PTO-1449 S.S. Department of Commerce (REV-2-82) atent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

	Pron	
065125.0108	09/930,781	
Atty. Docket No.	Serial No.	

003123.0100	07/750,77	01
Applicant Wu et al.	RECEIVE	
Filing Date	Group	OCT-0 9 2002

Filing Date Group
August 15, 2001 1632

TECH CENTER 1600/290

	83.	McDuffie et al., 1988, "Involvement of major histocompatibility complex products in tolerance induction in the thymus', J. Immunol. 141:1840-1847.
	84.	McHutchison et al., 1998, "Interferon alpha-2b alone or in combination with ribavirin as initial treatment for chronic hepatitis C", N. Eng. J. Med. 339:1485-1492.
·	85.	Mito et al., 1993, "Hepatocyte transplantation for hepatic failure", Transplant Rev. 7:35-43.**
-	86.	Mitzutani et al., 1995, "Inhibition of hepatitis C virus replication by antisense oligonucleotide in culture cells", Biochem. Biophys. Res. Commun. 212:906-911.
	87.	Mooney and Mikos, 1999, "Growing new organs", Scientific American. http://www.sciam.com:80/1999/0499issue/0499mooney.html.
	88.	Moscioni et al., 1989, "Human liver cell transplantation: prolonged function in athymic-Gunn and athymic-analbuminemic hybrid rats", Gastroenterol. 96:1546-1551.**
	89.	Mullins et al., 1996, "Perspective Series: Molecular Medicine in Genetically Engineered Animals", Journal of Clinical Investigation 98(11):537-539.
	90.	Nakajima et al., 1996, "Characterization of long-term cultures of hepatitis C virus", J. Virol. 70:3325-3329.
	91.	Ohashi et al., 2000, "Sustained survival of human hepatocytes in mice: a model for in vivo infection with human hepatitis delta viruses", Nat. Med. 6:327-331.**
	92.	Okamoto et al., 1991, "Nucleotide sequence of the genomic RNA of hepatitis C virus isolated from a human carrier: comparison with reported isolates for conserved and divergent regions" J. Gen. Viol. 72:2697-2704.
	93.	Onodera et al., 1995, "Long-term effect of intrasplenic hepatocyte transplantation in cogenitally ascorbic acid biosynthetic enzyme-deficient rats", Cell Transpl. 4:S41-S43.**
	94.	Osborn and Webber, 1982, "Immunofluorescence and immunocytochemical procedures with affinity purified antibodies: tubulin-containing structures", Meth. Cell. Biol. 24:97-132.

Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

[.	0 '	•	ે પ્લે	
7	OCT	0 7	2002	ğ
67				67

Form PTO-1449 U.S. Department of Commerce (REV. 2-82). Patent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use sexeral sheets if necessary)

Atty. Docket No. 065125.0108	Serial No. 09/930,781
Applicant Wu et al.	09/930,781 RECEIVED
Filing Date August 15, 2001	Group 1632 TECH CFNTED 1000/02

95.	Ouyang et al., 1999, "A approach for obtaining functional human hepatocytes in livers of immunocompetent rats", Hepatology 30:252A.**
96.	Pages et al., 1995, "Efficient retroviral-mediated gene transfer into primary culture of murine and human hepatocytes: expression of the LDL receptor", Hum Gene Ther. 6:21-30. **
97.	Palmiter et al., 1982, "Differential regulation of metallothionein-thymidine kinase fusion genes in transgenic mice and their offspring", Cell 29:701-710.
98.	Peterson et al., 1998, "Liver repopulation with xenogenic hepatocytes in B and T cell-deficient mice leads to chronic hepadnavirus infection and clonal growth of hepatocellular carcinoma", Proc. Natl. Acad. Sci. U.S.A., 95:310-315.**
99.	Ponder et al., 1991, "Mouse hepatocytes migrate to liver parenchyma and function indefinitely after intrasplenic transplantation", Proc. Natl. Acad. Sci. U.S.A. 88:1217-1221.
100.	Powell and Streilein, 1990, "Neonatal tolerance induction by class II alloantigens activates IL-4-secreting, tolerogen-responsive T cells", J. Immunol. 144:854-859.
101.	Poynard et al., 1998, "Randomised trial of interferon α2b plus ribavarin for 48 weeks or 24 weeks versus interferon α2b plus placebo for 48 weeks for treatment of chronic infection with hepatitis C virus", Lancet 352:1426-1432.
102.	Pullen et al., 1988, "The T-cell repertoire is heavily influenced by tolerance to polymorphic self-antigens", Nature 335:796-801.
103.	Ramsdell et al., 1989, "A nondeletional mechanism of thymic self tolerance", Science 246:1038-1041.
104.	Rhim et al., 1995, "Complete reconstitution of mouse liver with xenogenic hepatocytes", Proc. Natl. Acad. Sci. U.S.A. 92:4942-4946.**
105.	Rhim et al., 1994, "Replacement of diseased mouse liver by hepatic cell transplantation", Science 263:1149-1152.**

Examiner	Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 ct.S. Department of Commerce (REV. 2-84DE) atent and Trademark Office

Atty. Docket No. 065125.0108

Serial No. 09/930,781

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

Applicant Wu et al.

RECEIVED

(Use several sheets if necessary)

Filing Date

Group

OCT 0 9 2002

		August 15, 2001	1632	2002
	T		IE(CH CENTER 1600/29
106.	Rivas et al., 1994, "Transplantat Tranplantation 3:193-201.	ion of hepatocytes: an in-vitro	and in-vivo study in	canines", Cell
107.	Rozga et al., 1995, "Repeated in Transpl. 4:237-243.	traportal hepatocyte transplant	tation in analbuminen	nic rats", Cell
108.	Sacci et al., 1992, "Mouse mode parasite", Proc Natl Acad Sci. 8		Plasmodium falcipar	rum malaria
109.	Salomon et al., 1995, "A truncat thymidine and nucleoside analog 15:5322-5328.			
110.	Sandgren et al., 1991, "Complete hepatic regeneration after somatic deletion of an albumin-plasminogen activator transgene", Cell 66:245-256.			
111.	Sanhadji et al., 1992, "Transplantation in various murine models", Bone Marrow Transplantation 9:77-82.			
112.	Santoro and Joyce, 1997, "A ger U.S.A. 94:4262-4266.	neral purpose RNA-cleaving D	NA enzyme", Proc. 1	Natl. Acad. Sci.
113.	Scheffe, 1959, The analysis of variance, John Wiley and Sons, New York, NY, p.247.			
114.	Seeger et al., 1986, "Biochemical and genetic evidence for the hepatitis B virus replication strategy", Science 232:477-484.			
115.	Seglen et al., 1976, "Preparation of rat liver cells", Methods Cell Biol. 13:29.			
116.	Sells et al., 1988, "Replicative intermediates of hepatitis B virus in HepG2 cells that produce infectious virions", J. Virol. 62:2836-2844.			
117.	Shimizu and Yoshikura, 1994, "inhibition by alpha and beta inte		tis C virus in cell cult	ure and

NY02:409160.1

Examiner Date Considered

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 488. Department of Commerce (REV. 2482) DEPartent and Trademark Office

INFORMATION DISCLOSURE STATEMENT **BY APPLICANT**

Atty. Docket No. Serial No. RECEIVED 09/930,781 065125.0108 Applicant OCT.09 2002 Wu et al. Group Filing Date

(Us	e several sheets if necessary)	Filing Date August 15, 2001	Group 1632	TECH CENTER 1600/29
118.	Shimizu et al., 1992, "Evidence for in cell line", Proc. Natl. Acad. Sci. U.S.A		is C virus geno	me in a human T-
119.	Smythe et al., 1995, "Treatment of exp the herpes simplex thymidine kinase g			enovirus transfer of
120.	Sommer et al., 1979, "Hepatocellular tacute liver failure in rats", Transplant		nt of D-galactor	samine-induced
121.	Soriano et al., 1992, "Retroviral transdi SCID mice after hepatocellular transpl			
122.	Streilein, 1991, "Neonatal tolerance of fashioned' way", Transplantation 52:1		ng graft accepta	ance the 'old-
123.	Su et al., 1996, "Selective killing of A associated virus transfer of the herpes Therapy, 7:463-470.**			
124.	Sugiyama et al., 1997, "Genetic analysinfected human T cells", J. Gen. Virol	-	(HCV) genome	from HCV-
125.	Summers and Mason, 1982, "Replicate transcription of an RNA intermediate"		atitis B-like vii	rus by reverse
126.	Sutherland et al., 1977, "Hepatic transplantation in acute liver failure", Surgery 82:124-132.**			82:124-132.**
127.	Takamizawa et al., 1991, "Structure and organization of the hepatitis C virus genome isolated from human carriers", J. Virol. 65:1105-1113.			
128.	Takeshita et al., 1993, "Hepatocellular ischemic liver failure in rats", Cell Tra			experimental acute
129.	Taylor et al., 1999, "Inhibition of inter Science 285:107-110.	feron-inducible protein kin	nase PKR by H	CV E2 protein",

Examiner	Date Considered	
23.141.111.1	Date Considered	

Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

Form PTO-1449 U.S. Department of Commerce (REV. 2-82) Parent and Trademark Office

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

(Use several sheets if necessary)

Atty. Docket No. 065125.0108	Serial No 09/930,	
Applicant Wu et al.		OCT_0 9 2002
Filing Date August 15, 2001	Group 1632	TECH CENTER 1600/29

130.	Thomas, 1999, "Hepatitis C virus dynamics in vivo and the antiviral efficacy of interferon alfa therapy", Hepatology 29:1333-1334.
131.	Touraine, 1991, "In utero transplantation of fetal liver stem cells in humans", Blood Cells 17:379 387.
132	Vemura et al., 1992, "Immune tolerance to a defined heterologous antigen after intrasplenic hepatocyte transplantation: implications for gene therapy", FASEB 6:2836-2842.
133.	Verma and Somia, 1997, "Gene therapy promises, problems and prospects", Nature. 389:239-242.**
134.	Wiederkehr et al., 1990, "Hepatocyte transplantation for the low-density lipoprotein receptor-deficient state" Transplant. 50:466-476.**
135.	Will et al., 1987, "Replication strategy of human hepatitis B virus", J. Virol. 61:904-911.
136.	Willems et al., 1994, "Hepatitis virus C-RNAs in plasma and in peripherial blood mononuclear cells of hemophiliacs with chronic hepatitis C", J. Med. Virol. 42:272-278.
137.	Wilson et al., 1992, "Hepatocyte-directed gene transfer in vivo leads to transient improvement of hypercholesterolemia in low density lipoprotein receptor-deficient rabbits", J. Biol. Chem. 267:963-967.
138.	Wilson et al., 1991, "Transplantation of allogenic hepatocytes into LDL receptor deficient rabbits leads to transient improvement in hypercholesterolemia", Clin. Biotechnol. 3:21-26.
139.	Wu et al., 1991, "Receptor-mediated gene delivery in vivo: partial correction of genetic analbuminemia in nasage rats", J. Biol. Chem. 266:14338-14342.
140.	Yoo et al., 1995, "Transfection of a differentiated human hepatoma cell line (Huh 7) with in vitro transcribed hepatitis C virus (HCV) RNA and establishment of a long-term culture persistently infected with HCV", J. Gen. Virol. 69:32-38.
141.	Yuh et al., 1997, "A rodent model of in utero chimeric tolerance induction", J. Heart Lung Transpl. 16:222-230.

Examiner	Date Considered	

^{*} Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

O 1 P 2002 W	4 · 1)	Page 13 of 13
Form PTO-1449 U.S. Repartment of Commerce (REV-23-82) Patentiand Trademark Office	Atty. Docket No. 065125.0108	Serial No. 09/930,781
INFORMATION DISCLOSURE STATEMENT BY APPLICANT	Applicant Wu et al.	
(Use several sheets if necessary)	Filing Date August 15, 2001	Group 1632

 4)	
142.	Yuh et al., 1992, "Transcriptional regulation of precore and pregenomic RNAs of hepatitis B virus" J. Virol. 66:4073-4084.
143.	Zignego et al., 1992, "Infection of peripheral mononuclear blood cells by hepatitis C virus", J. Hepatology 15:382-386.
 144.	Zucker, 1989, "On finding all suboptimal foldings of an RNA molecule", Science 244:48-52.

RECEIVED

OCT 0 9 2002
TECH CENTER 1600/2900

NY02:409160.1

Examiner Date Considered

Examiner: Initial citation considered, whether or not citation is in conformance with MPEP 609; Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.